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UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau ---- Bureau of Agricultural Economics

SUMMARY OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 19, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.
Offices: Federal Office Building, Helena, Montana.

Weather and soil moisture conditions were generally favorable for the growth of crops and the progress of farm work during the week ending Tuesday, April 19th. While seasonal progress to-date has been backward, general conditions have continued encouraging in all sections. Much planting and plowing was accomplished during the week except in a few districts where fields remained too wet for working. Seeding of spring wheat is more than 50% completed in the advanced areas. Beet planting has started in Carbon, Pondera, and Stillwater Counties. Garden preparation is generally underway.

Growing conditions improved with warmer weather, and benefited slightly from light scattered showers during the week. Topsoils, however, have been drying fast in some central localities, where seasonal moisture has not been up to normal, and will need good rains soon to prevent soil-blowing and assure good spring growth. Progress and condition of winter wheat and rye was reported good. All winter grains have been stooling nicely, with conditions in Fergus County considered the most satisfactory since 1932. Reports from additional counties continue to indicate that winter-killing was negligible. Earliest sown spring wheat is emerging, and other spring-sown grain is germinating. Weeds also are getting a good start. High winds caused some soil erosion and damage to winter wheat and spring-sown grains on the 18th. Shrubbery is coming rapidly into leaf, and trees are budding generally.

Growth of grass on ranges and pastures was stimulated by the week's warmer weather, and new grass advanced to sufficient carrying capacity in some southeastern districts. Most livestock have been turned on the range, and yard feeding has been discontinued except in the northeast where ranges are still in poor condition. A surplus of feed will be carried over in western and most southern districts as a result of the mild winter and availability of range grass during much of the usual feeding season. The outlook for summer feed is quite favorable at this time, including the northeastern counties where last year the feed situation was bad and almost a complete failure because of the severe drought. Alfalfa has survived the winter in good shape, and at present is greening slowly.

It was a good week for calving and lambing operations, although a little loss of lambs occurred in the southwest because of wet conditions. The general condition of livestock remains good. Farm lambing has been completed in most sections, and range lambing will likely get generally underway about the 1st of May, at which time new grass is expected to be adequate for sheep in general.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING APRIL 19, 1938

Station	Temperature Highest	Temperature Lowest	Sunshine % of Possible	Total Precipitation This Week	Total Precipitation From April 1st to date	Total Precipitation For Corresponding Period in 1937
Billings	76	35	*	T	0.23	0.45
Bozeman	68	29	*	0.45	0.79	1.54
Conrad	*	*	*	0.00	0.43	0.00
Cut Bank	64	27	*	0.01	0.39	0.27
Fort Peck	71	36	*	0.01	0.01	0.21
Glendive	76	35	*	0.01	0.01	0.31
Great Falls	67	31	*	0.00	0.09	0.14
Havre	70	34	62	T	0.01	0.29
HELENA	63	36	41	0.07	0.43	0.12
Kalispell	62	32	54	0.14	0.27	0.49
Lewistown	72	28	*	0.32	0.44	0.42
Malta	70	32	*	0.00	0.08	0.73
Miles City	76	40	52	0.11	0.15	0.47
Missoula	64	32	24	0.07	0.22	0.57
Poplar	78	34	*	T	T	0.36
Stanford	*	*	*	0.45	0.62	0.82

* No Data.

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Helena, Montana.
April 20, 1938.

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Bureau of Agric. Economics.

stock should give grass lands an opportunity to recover from after affects of the drought. Work is slightly more plentiful than during the winter months. With start of farm work, an increase in the demand for labor is expected.

SUN RIVER IRRIGATION PROJECT: Light snow fell Monday and Tuesday totalling .17 inches of moisture. Some field work starting and generally fields will be dry enough the first of the week.

SWEETGRASS: Weather changeable. Rain and snow. Growing conditions slow due to night frosts. Winter wheat in excellent conditions. Plenty of moisture and no wind erosion damage. Subsoil moisture best for several years. Livestock in good condition due to favorable winter. Calf crop reported best in years, Lambing in small flocks under way, with normal production and light losses to date. Early grasshopper hatching started before the storm, but indications are that they will not survive the storm. Crickets hatching in Bridger and Kent Lake communities in alarming quantities, showing little if any effect from recent storms.

TETON: Precipitation first of week resulted in .15 inch moisture. Farmers busy getting machinery and seed ready to start operations as soon as weather permits. Winter wheat seems to be coming thru in fair condition considering dryness of season. Calving general but lambing not general as yet. Weather past week ideal for calving.

TOOLE: General snow throughout county fore part of week, particularly heavy in Sunburst area. Very little field work attempted. Frosts still in ground and still considerable snow in stubble. Winter wheat in good condition. Few reports on livestock killed in last week's blizzards. Most of cattle that drifted have been found and losses were generally slight. Some of the smaller sheep operators have started lambing operations.

VALLEY: Past week characterized by lower temperatures, snow flurries, cloudy and some wind, with considerable soil drifting in Avondale area. No farm work being done. Few reports of sheep losses caused by storm of a week ago.

WHEATLAND: During past week approximately 2½ inches of snow fell, general over the county, followed by warm weather which has taken the snow off with very little runoff. No activity in seeding or field work as yet. No change in livestock situation from last week.

WIBAUX: No precipitation. Cool weather first part of week, warmer latter part. Some field work started after last week's storm. About middle of next week it should be dry enough so that field work will be general. Growing conditions good for crested wheatgrass planted last fall. Indications are for normal acreage of wheat. There will be a large acreage of feed crops. Livestock in good conditions on average. Fairly good moisture conditions on ranges which should start grass with warmer weather.

YELLOWSTONE: Precipitation .19 inch. Cool and windy, with snow flurries. Temperature unfavorable for growing conditions. Winter wheat survived practically 100% and is in excellent condition. Spring wheat seeding in progress in irrigated districts and farmers all at work in fields again. Moisture conditions will enable farmers to seed all crops in irrigated land without irrigation. Four to four and a half feet of moisture in soils tested for depth of moisture. Livestock in good condition. Lambing on Project in full swing with good percentage reported. Range lambing also under way with good results. Considerable unemployed labor. Cricket program under way with some dusting operations expected to start by the 20th of April. Crickets hatched heavily in many areas and have survived storms and cool weather.

CASCADE: No precipitation. Cool cloudy weather, little wind. Winter wheat about 90% survived, condition fair to excellent. About 20 inches moisture in driest sections and as much as four feet in south part of county. Condition for seeding spring grains best in four years. Preparation of land for seeding beets under way and some fields will be seeded first of week under good conditions. No hoppers or crickets hatched yet. Organization complete for campaign and plan approved by Commissioners. Pale western cutworms are hatched and about 1/8 inch long, farmers watching opportunity for control by cultivation. Livestock in excellent condition. No loss reported in storm of last week. Lambing under way in small flocks. Ample feed supplies. No calls for financing to restock ranges.

GARFIELD - PETROLEUM: No precipitation. Growing conditions good. Some wind, partly cloudy, limited winter wheat seedings in good condition. Weather conditions have not permitted field work generally, but early spring seedings have been [illegible] in limited areas. Soil drifting on exposed areas resulted in little crop damage from the severe March storms. Moisture in the fallow varies from 18 to 24 inches or more, in scd three inches less. Livestock generally have wintered well and are in good condition. Little feed reserves remaining. Considerable loss experienced by sheepmen during last storm. Prospects for spring range grasses are much improved.

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PARK: Warm weather end of week is fast melting snow and moisture is down in ground from two to four feet. Crop prospects excellent. Most winter wheat fields in good shape. Fields too wet for spring work. Grass greening where snow has melted or blown off. Livestock in excellent condition. Lamb and calf above normal. Scarcity of milk in county. Good milk cows commanding good prices. No reports on wool being contracted yet. If warm weather of past two days continues, cricket hatchings expected soon.

PHILLIPS: Slight amount of moisture fell during week. Generally cool and snow melting slowly with little runoff. Warmer latter part of week. Conditions not yet favorable for field work. If weather continues warm, field preparation will be general within a week. Moisture penetration of two to three feet, with lower average in northern part of county. Moisture conditions in valley are very good. Livestock condition generally good. Some losses of sheep and cattle reported as result of recent storm. Range short in north country; better south of Milk River Valley. Water plentiful.

PONDERA: Light snows fore part of week with moisture content of .40 inch. Warmer last part of week with rising temperatures. No wind. Soil moisture ranges from 10 inches in some stubble land to 2 feet in summer fallow and basin listing. No growing weather so far. Very little seeding has taken place because moisture conditions in fields did not allow machine operations. Some sheep operators have begun lambing. Cattle men having good results in percentage of calves dropped. Generally livestock is in good condition. Labor adequate for present needs. No reports of insects hatching. Some ranch operators have begun poisoning gophers and a few have reported seeing Columbian ground squirrels.

PRAIRIE: No precipitation. Weather cool fore part of week but warming up the latter part of week. Fields freeze every night. Majority of land too wet for field work before Monday; some work done Thursday on leveler bench lands where the wind had blown fields clear of snow. Winter wheat seems to have survived winter in good shape; there is only a small amount of winter wheat in the county. Seed loans coming in slowly; fewer applications than were made last year. Nearly all livestock operators report the loss of some stock during the storm of last week. This loss was particularly severe north of the Divide where there was more snow and the storm was intensified.

RICHLAND: Snow of last week has continued to remain on the ground over much of the county. About half of eastern half of county received from six to ten inches of snow that was pretty well drifted and blocked all roads. Will probably be week or ten days with favorable weather before field work can be done, except in small areas where there was less snow. The few hoppers which had hatched out on some south slopes more or less disappeared with recent storm. Farmers getting machinery fixed up, ready to start field operations as soon as ground conditions permit. No change in livestock situation.

ROOSEVELT: No precipitation. Snow thawing during day, freezing at night. Very little runoff, Snow practically gone in western section, very little growth started. No crop work done and none expected on majority of soils for another week, with possible exception of extreme western section. Blizzard of previous week caused some loss among early calves of stock which was unprotected. Stock being fed in most instances.

ROSEBUD: Light snowfall added little moisture to soil. Grass and winter wheat made little growth during week because of low temperature. Beet growers have considerable acreage ready for seeding but are awaiting contracts from sugar companies before seeding. Most sheep bands scattered during last week's storm, have been gathered with very light losses reported. No cattle losses reported. Both cattle and sheep being moved to summer ranges. Calving started with good percentage in prospect. Several shipments of cows have been brought in for restocking purposes.

SANDERS: Precipitation .43 inch. Generally cloudy with light showers, warm days and frosty nights. Crop conditions very good. Excellent moisture conditions. Winter wheat and meadows starting to green. Field work starting but soil generally too wet. Winter wheat in good condition. Much of winter wheat which did not get to surface last fall from lack of moisture is now coming up. Apparently no winter killing of wheat or meadows. Livestock in very good condition. Some surplus feed. Range showing green and some stock turned out to grass. Some surplus of labor.

SHERIDAN: Weather mild during past week. Freezing at night, with temperatures rising during day. Very little moisture received since middle of March. Just trace of snow fell during storm which occurred in other parts of State a week ago. Moisture condition of soil better than for several years. Moisture has penetrated to depth of two feet in stubble and from three to four feet in fallow. Very little farm work done and present conditions indicate that with good weather, field work will start in about a week. Livestock which was retained in the county is in fair to poor condition. Range conditions look promising and the shortage of

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FERGUS: Chilly first of week but good growing weather last two or three days. Winter wheat in practically entire county stood the severe storm last week in very good condition. Warm weather beginning to show considerable work. Some soil blowing reported in eastern part of county with some spring seedings quite badly damaged. Some livestock losses were reported by stock being caught out in blizzard, some going into fence corners and some covered completely with drifts. This loss is not as severe as was first thought, although there was some shrinkage in stock during storm recovering very rapidly. Most folks had plenty of hay for feedwhich was necessary. Insect control program being outlined but very few crickets have been reported hatched. No grasshoppers except on the bare knolls with a south exposure.

FLATHEAD: Past week warm with only trace of precipitation. Fields are rapidly drying out. Seeding has started and will be in full swing next week, unless weather conditions change. Subsoil moisture better than during past two years, but spring precipitation will be necessary to insure good growing conditions. Winter wheat greening up in good shape. Grass beginning to green up and livestock getting some feed off ranges. Livestock in good condition.

GALLATIN: Weather generally warm, partly cloudy, no precipitation. Fields drying rapidly in north end of county although still snow-covered in southern portion. Travel possible on gravelled roads, but rather difficult on dirt roads due to mud. Field work just getting started latter part of week in north end of county. Farm flock lambing completed, and range lambing under way.

GLACIER: Wet snow, six inches, in middle of week. Some wind first part of week. Some early seeding done. Most fields too wet to work. Grass coming rapidly. Sheepmen getting ready to lamb.

HILL: Precipitation for past week .01 inch. No soil blowing. Winter wheat in good condition. Subsoil moisture condition good, No field work done as yet. Grass making very slow start and some livestock losses reported during the last storm. Livestock in fair condition.

JUDITH BASIN: Weather unsettled, precipitation slight in form of snow with temperatures near freezing at night. Very little growing weather. Winter wheat in western end of county looking good. Soil erosion and unfavorable moisture conditions retarding winter wheat in central and eastern portions. Soil moisture normal in extreme western portion, considerably below normal in central and eastern parts of county. Some soil blowing in evidence. Crested wheatgrass had made 4 to 6 inches growth but very little growth on native ranges. Livestock mostly recovered from severe effect of recent storm. Heavy losses reported from stockmen the latter part of March. Some ranges are open and stock are picking up a little dry grass on ranges. Feed scarce on some ranches. Crickets have started hatching in some areas.

LAKE: Scattered showers over most of county. Grass starting to grow. Fall seeded grain tillering. Most of farmers starting to seed early crops. Spring plowing in full swing. Alfalfa starting to get green. Livestock in good condition. Some cattle and sheep on early ranges. Lambing nearly completed. Mormon crickets and grasshoppers hatching. Squirrels out and poisoning started.

MADISON - JEFFERSON: Fair and warm throughout week. No precipitation. Growing conditions good. Grass started to green up during week. Fields in many localities dried up enough to permit many farmers to start farming. Some areas, however, still too wet for working the ground. Moisture conditions favorable in nearly all areas, but more moisture needed in the area around Whitehall and along the Jefferson Valley. Stock conditions good with excellent weather for lambing and calving. Large surplus of hay. Several large outfits started lambing this week.

MEAGHER: Light storm past week, no run-off. No spring growth yet started. No change in crop conditions, growth not yet started. Favorable week for livestock except some localities report two day blizzard. No exceptional loss reported. Labor supply and demand unchanged.

MISSOULA: Weather cloudy to fair, mild temperature, slight precipitation. Growing conditions fair to good latter part of week. Crop conditions good with exception of being late. Spring work of preparing seed-bed well under way, some seeding commenced. Good outlook. Livestock wintered well, however, are still being fed. Ranges starting to turn green, expected to be good to excellent within a week or two. Sufficient labor prospects, some men being hired.

MUSSELSHELL - GOLDEN VALLEY: Rain followed by snow on Tuesday. Approximately .25 inch moisture. Crop conditions very good. No damage done to winter wheat crop. Livestock in good shape. Lambing not yet started, but there is some calving. Calf crop has been reported to be very good.

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The following county summaries of crop conditions for the week ending April 9, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Small amount of precipitation first part of week with warm weather the last two days. With the weather warming up, it is ideal for starting grass; soil moisture excellent; fieldwork starting. No change in livestock situation.

BIG HORN: Light precipitation resulting in splendid growing conditions but delaying the spring work which farmers were ready to begin. Winter wheat has better prospects than for a number of years. A small acreage of spring wheat was put in before the last rain. Farmers are waiting for sugar beet contracts. A large acreage of sugar beets is anticipated. Livestock in good condition. Range is turning green in places over the county following recent rains. Mormon crickets are reported hatching in some communities of the county. Preparations are being made to control them by Federal, County, and local agencies.

BLAINE: The amount of precipitation during the past two months has been somewhat less than normal, but the soil moisture this spring is much better than it has been for several years. No field work has been done, as yet. Prospects for a crop in 1938 are much better than for several years, due to amount of subsoil moisture which in many cases extends to three feet. There is more than average of good summer fallow that will be planted to crops this spring. Field work will begin some time this coming week. Livestock wintered in excellent condition. Most stockmen report less than normal loss due to mild winter and sufficient feed to care for stock in good shape. Lambing just starting on most sheep ranches, with very satisfactory lamb crop being reported. Calving is well under way and most stockmen report very satisfactory results so far. Labor normal.

CARBON: Moisture conditions are perhaps the best in years in this county at the present time. A heavy wet snow fell during the past week and there has been considerable amount of snow during the past month. These moisture conditions are general in the entire county, although much heavier in the southwest portion. The fall wheat is green in practically all parts of the county and prospects are very bright for all fields coming through with a good stand. Carbon county has abundant moisture, both in the irrigated and dry land sections, lots of feed reserves because of the open winter, livestock is in good shape and there is a plentiful supply of seed on hand.

CHOUTEAU: Drying weather continues, winds moderate, cool for the season. Fields drying and some work will begin next week. Winter wheat doing well in most sections. Most livestock have wintered well and going into the spring almost as good as last winter. Feed supplies are ample as open winter has reduced feed needs. Some demand for labor for spring work, but supply ample. Preparations for insect control continue. No cricket hatching reported this week.

CUSTER - POWDER RIVER: Light snowfall fore part of week in south country thus adding surface moisture. Weather mostly near freezing but rising latter part of week. Farming operations not yet general. Soil mostly too wet from recent snows and weather too cool for seeding. Winter wheat and rye looks good and should begin growing with warmer weather. Soil moisture in dry land generally less than a foot. Alfalfa showing green, although only a few fields still living. All stock out grazing again after storm with no serious losses reported. Stock water ample for the present and early grass showing up in fair volume. North side ranges still unstocked. Newly-hatched crickets in south country reported to have survived recent storms with no bad effects.

DANIELS: Cold and windy fore part of week. Warmer latter part. No precipitation. Considerable soil blowing taking place on fields left bare from last year. Subsoil moisture averages from 2½ to 5 feet on cultivated land. In general, fields covered with a natural vegetative growth have the most moisture. A few farmers have started spring work, a little seeding has already been done in the sandier parts of the county. No change in livestock or labor situations.

DAWSON: Snow of last week gradually melting and moisture going into ground. Bulk, however, in coulees although fields with thistles holding some of the snow. Nights quite cool. Seeding under way in some areas throughout the county. Moisture conditions favorable favorable for germination. Reserve moisture not too high. Grasses beginning to show on warmer exposures but no grazing for stock. Losses from recent storm scattered quite generally over county, but relatively small in aggregate.

FALLON - CARTER: Weather this past week cool. .01 inch precipitation. Temperature too low for crop growth. Frost still in first foot of top soil. With continued cool moderate clear days this next week farming operations anticipated to be in full swing. Crop conditions in general good. No change in livestock this past week.

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UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau —— Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 12, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.
Offices: Federal Office Building, Helena, Montana.

Cold, cloudy weather generally and light to moderate snows in western and central sections during the first half of the week ending Tuesday, April 12th, further delayed growth of vegetation and progress of farm work in Montana. The last half of the week, however, was warm and pleasant, and favored the rapid drying of fields and the general resumption or starting of plowing and seeding operations in nearly all sections.

Soil moisture conditions still further improved during the week as the result of slow melting of new snowfall in western and central sections and of deep drifts from the late March storm in eastern sections. Irrigated lands are reported to have benefited from absorption of precipitation since last fall to the extent that irrigation will not be required in several districts for germination of spring-sown crops.

Except that spring conditions are late, present growing crops appear good. Freezing nights have prevented any rapid growth of winter grains during the past week, but stands so far are clean and healthy, and apparently in better condition for this time of season than for the past two or three years. Winter wheat is reported to have survived practically 100% in Yellowstone County, and 90% in Cascade County. Other districts report correspondingly high percentages of survival. In Sanders County, wheat is emerging nicely in areas where it failed to show last fall because of lack of moisture. Seed beds are being prepared for beets, but seeding will await completion of contracts. A little damage to early spring-sown grains occurred in eastern Fergus County.

Warmer weather during the last half of the week was favorable for starting grass in good shape. Except in a few south-central districts, there has not been sufficient growth to date for new grazing. Stock water is ample for the present. Ranges are poor in many north-central and northeastern sections. Considerable recovery is expected this season for many of the drought-affected sections and overgrazed areas because of improved moisture conditions and reduced livestock numbers.

Livestock are mostly in good to excellent condition. Many are still being fed; others are loose on the range and subsisting entirely off the old forage. Some shrinkage occurred among livestock in northern and eastern areas that bore the brunt of last week's severe blizzard. In the north end of Liberty County, losses among cattle and sheep by smothering and freezing were estimated around 100 head. Elsewhere in the storm-swept areas, losses were scattered quite generally, but were relatively small in the aggregate. Considerable time and labor were required of stockmen in locating and retrieving herds of cattle and sheep that had drifted with the storm. Except for loss of some calves during the severe storm, calving and lambing operations have progressed satisfactorily. The percentage of lambs so far this season has been high. Range lambing is reported starting in a few localities.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING APRIL 12, 1938

Station	Temperature Highest	Temperature Lowest	Sunshine % of Possible	Total Precipitation This Week	Total Precipitation April 1 to April 12, 1938	Total Precipitation For Corresponding Period in 1937
Billings	66	20	*	0.13	0.23	0.45
Bozeman	54	15	*	0.23	0.24	1.28
Conrad	*	*	*	0.11	0.43	0.00
Cut Bank	66	21	*	0.24	0.38	0.27
Fort Peck	68	22	*	T	T	0.19
Glendive	73	19	*	T	T	0.31
Great Falls	65	22	*	0.09	0.09	0.14
Havre	68	26	64	T	0.01	0.21
Helena	62	25	71	0.17	0.36	0.12
Kalispell	60	30	60	0.05	0.13	0.22
Lewistown	70	20	*	0.12	0.12	0.42
Malta	70	22	*	T	0.08	0.73
Miles City	72	24	78	0.04	0.04	0.44
Missoula	68	32	54	0.11	0.15	0.26
Poplar	69	22	*	T	T	0.36
Stanford	*	*	*	0.17	0.17	0.82

*No data.

Series - 1938 - No. 2
Helena, Montana

W. E. Maughan, Weather Bureau
Jay G. Diamond, Bureau of Agric. Economics

wheat has been seeded in the western part of the county, but due to stormy, cold weather of the past week all farming operations were stopped. Soil conditions are excellent for spring work. Range livestock has wintered in excellent shape. Most lambs which have been on feed for fattening purposes have been shipped with a loss reported by practically every feeder. The same situation applies to the cattle feeder.

FALLON - CARTER: .17 inch precipitation the past week resulting from snowfall accompanied by high winds. Soil moisture 2 to 3 feet on average over county. Most operators had sufficient quantity of seed for spring seeding operations. Approximately 25% operators needed seed loans; most of the loans being for seeding expenses such as gas, oil, etc. Seeding operations will be in full swing as soon as late snow melts. Very little under way as yet. Crop conditions good. Very optimistic feeling prevails at the beginning of spring work. As a whole, livestock wintered in excellent shape. Most operators have considerable quantity of feed left over. In southern Carter County it is estimated that approximately one winter's feed supply remains beginning the spring. Livestock in good shape. Range grass started off with good growth. Grass will be in excellent shape by the time lambing operations are in full swing, approximately April 16th. There has been no report of labor shortage. Most sheepmen have lined up labor for lambing.

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Helena, Montana,
April 5, 1938.

amount of seed grain in the county. Crickets are starting to hatch in parts of the county. Plans are being made for an extensive control campaign. All livestock in good condition with considerable feed being carried over in the county for the first time in several years. Lambing has started. Considerable demand for feeder pigs.

SUN RIVER PROJECT: Moisture conditions about as a year earlier, with about a normal fall since September, 1937. Field work was started in March but was halted with severe storm late in March. Very little snow, however, on fields and field work should start immediately with warmer weather. Most farmers are preparing to irrigate before they seed crops. Considerable acreage of seed peas will be planted in place of wheat in 1938. Material increase in sugar beet acreage expected. Because of prospective price of wheat, farmers will turn to flax and mustard on limited acreage. Plentiful supply of hay and feed grain on hand. Considerable quantity will remain unsold. Sufficient supply of labor available at present time.

TETON: Records kept for this county show that the average annual precipitation for the past 47 years is approximately 13.67 inches. Precipitation for the growing season is normally about 7.56 inches. Even though records show that the annual precipitation was slightly less in 1937 than in 1936, there is a general feeling that the summer fallow which is ready for crop this year is in better condition than summer fallow a year ago, of course it is still way below normal. It looks as though crop prospects for 1938 are not very bright, unless plenty of moisture is received during the growing season. The winter wheat is not particularly good, due to very dry conditions. Livestock has come through the winter in pretty good shape. The recent storm caused some losses to early calf crop. Practically no lambing has been done as yet.

TOOLE: High winds with snow during week. Snow drifts throughout county. No field work done to date. Splendid snows received during winter and all went into ground, storm of last week only exception. Winter wheat in good condition. A few cattle lost during last week. All livestock in good shape and plenty of feed still on hand. Some men being hired at present time. Plenty of local labor on hand.

VALLEY: This past winter there was less snow than in the past two or three years, but more moisture in what snow there was, giving a better runoff than has been had for a number of years. The night of the 28th the county received a general rain followed by one of the worst snow blizzards known for years, lasting two days and blocking most of the roads. Moisture conditions are reported to be the best this spring of any time since 1928. Most of the farmers have either purchased or lined up their seed for this spring. No farm work will be done for at least another week and possibly ten days. Livestock came through the winter in pretty fair shape. Stock were being turned out on the range before the blizzard this week and no doubt some damage was done, particularly to sheep, as stock drifted with the storm.

WHEATLAND: Moisture conditions generally are better this spring than for several years. One of the worst storms of the winter occurred during the past week, while the temperature was not low there was a high wind and snow. As indicated, moisture conditions are much improved, which has improved soil conditions. Winter wheat in the American Fork area came through the winter in exceptionally good shape. There was very little winter grain seeded in other parts of the county. These are all in good condition. No spring field work started as yet. The winter was extremely mild and though stockmen went into the winter short of range the stock came through in exceptionally good shape with a considerable reserve of hay in the irrigated districts. The storm of last week was particularly bad in the eastern part of the county and several head of stock were reported lost. There is some calving and lambing will start soon.

WIBAUX: Heavy blizzard during the week. Heavy snow but all of it mostly in drifts. Winter wheat in good condition. Crested wheatgrass coming up. Small acreage of spring wheat planted. Although soil moisture is better than for several years it is spotted. Some parts of the county and some fields have a good supply. Reports are from 6 inches to 5½ feet. Irrigation from dams, dikes, and ditches has been very successful. Livestock is in good condition and has wintered better than average. Feed supply is better than past few years. Sheep numbers very small. A few outfits have completed and a few started lambing. Lamb crop above average. Only a small amount of hay has been shipped into the county this winter.

YELLOWSTONE: The latter part of March has been could and blustery, with scattered snows, including one general snow of great benefit to the entire county. Preceding this weather the winter has been very mild, and there was only one spell of sub-zero weather. There is more moisture in the soil at the present time than for this time of the year for 20 years. Prospects for a winter wheat crop are the best they have been for a considerable period of years. Some spring

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numbers from 1934 to 1937 have not been replaced to any appreciable extent. Due to the open winter and decrease in livestock numbers considerable feed is on hand and the livestock came through the winter in much better condition than a year ago. Not much call for labor so far, however, the supply is ample at present. No reports of insects hatching to date.

PRAIRIE: Weather conditions have been mild with an early spring until Monday evening when it started to rain which turned to snow the following morning, and it has been snowing and blowing ever since. Farmers are enthusiastic over the moisture conditions this spring and are all remarking how splendidly the land is plowing. Part of this oil moisture is due to the moisture received last September and October which was above normal. Moisture was down on the leveler benches from 14 to 18 inches the first of the week and should go lower with the added moisture received this week. Several thousand acres of grain already seeded before this week's storm, which should come on rapidly now that the weather has warmed up. Crested wheatgrass seeded in the fall of 1937 showing up and looks like a stand. Livestock in fair condition. Some of the outfits that had larger feed reserves carried their stock through in good shape. Little loss is anticipated this spring. Supply of labor is ample.

RICHLAND: At present time there is approximately two feet of moisture as an average over the entire county. In some places where the snow drifted during the winter, moisture is to greater depths. However, present moisture conditions are the best that they have been at this time of year for at least ten years. Field work not started yet on account of late storms. Doubtful if any field work will be done for another week. In general, livestock have come through the winter in fine shape, although they are probably somewhat thinner on the average than most years due to shortage of feed especially on many dryland farms. It is expected that expansion will take place more on sheep than on cattle. Practically all the livestock feeders encountered rather severe losses in their feeding operations this year due to sharp decline in prices for fat livestock, particularly for lambs and cattle. Approximately 120,000 lambs and ewes were fed for market on the Lower Yellowstone Project during the 1937-38 season. Most of these have now been marketed.

ROOSEVELT: Moisture conditions better than they have been for several years. During the past week rain and snow have fallen in the county and although there is a considerable amount of snow, the value has been lessened on farm land because of drifting. Two feet of moisture in the ground was general over the county late in the fall and when the present cover of snow melts it is expected that this amount will be somewhat greater. No field work has been done yet this spring with a possible exception of a little work on the lighter soils during the middle of March. Seed supplies are believed adequate to take care of all seeding operations in the county although practically all of the seed grain has been shipped in. A great number of farmers have made seed loan applications. Seedings of crested wheatgrass made during the fall of 1937 have been reported to have started and prospects good for obtaining good stands. What livestock was wintered in the county is in comparatively good shape as a result of the mild weather during the early winter. The present snow storm has been rather hard on livestock which was not brought in and fed although few losses are expected. Prospects of good range feed are very good as a result of the winter moisture.

ROSEBUD: Severe snow storm with high winds during week. Precipitation for month above normal. Moisture conditions best in several years. Winter wheat condition good with very little winter killing. Spring field work started first of week but snow storm caused by delay of a week or ten days. Local seed supply appears adequate. Both cattle and sheep wintered in excellent shape. Cattle generally wintered on range with little supplementary feeding. Small feed reserve carried over. Ranges generally in good condition for spring grazing with some grass greening up before the storm. Mormon crickets hatched over a wide area.

SANDERS: Moisture conditions crop prospects for 1938 are very promising over entire county. Crop and range land has an abundant moisture supply. There is a heavy snow supply in higher atlitudes for summer stream flow and irrigation. Soil moisture in fall of 1937 was lowest on record. Winter wheat entered winter in poor condition with about 50% showing above ground. Present conditions show good germination and evidence of good stand. Spring is very backward and no field work done at present. Livestock have wintered well under mild weather conditions and ample feed supplies, with some surplus. Range moisture conditions are excellent for early grazing and regrassing of range which has suffered materially during recent drouth years.

STILLWATER: In general crop conditions are more favorable than at this time last year. The 1.26 inches of precipitation received in March is .32 above the five year average at Columbus. As frost was out of the ground practically all of the moisture this month has gone into the ground with little runoff. With the exception of a small amount of winter wheat that has blown the winter wheat looks good. There has been a limited amount of spring seeding done. There is ample

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comparatively small run-off of water, most of the moisture going into the soil. There was comparatively little loss of winter wheat. No reported losses of alfalfa or pastures because of winter killing. Prospects for water for the coming season are good. Soil moisture conditions are very good. Livestock has come thru very good. There has been no reported losses of any material size reported in any parts of the county. There is a surplus of feed and the price of such feed is below normal.

LEWIS & CLARK - BROADWATER: Weather cold, resulting in a stoppage of all plant growth. Sub-soil moisture conditions the best in nine to ten years in Lewis and Clark County and northern part of Broadwater County. Available irrigation water in mountains variable, possibly somewhat similar to last two or three years. Winter wheat in excellent condition with practically no winter killing. Crested wheatgrass stands from fall plantings beginning to show up well. Some soil blowing in both counties. All calsses of livestock wintered in good condition. The lamb and calf crops should be normal or above. Plenty of feed with considerable carryover. Some growers have not sold any of last year's hay crop. Scattered damage from mormon crickets and grasshoppers expected. Considerable damage expected in one area of Lewis & Clark County from crickets.

MADISON - JEFFERSON: Snows during the past two weeks over a large portion of the two counties have improved the moisture conditions on crop and range lands that went into the winter very dry. Large amounts of snow in the high mountains, indicating better water supplies than during previous years. Most of the winter wheat seems to have come through the winter in fair to good shape. A large quantity of hay and some other feeds will be held over due to good hay crops in 1937 and very favorable weather conditions that prevailed throughout the winter. Livestock and feed conditions have been excellent throughout the winter. Breeders of purebred sheep are all well along with their lambing operations and report a very satisfactory lamb crop. Several large range outfits will start lambing during the next week or ten days. Several farm laborers have inquired for work during the past week but at the present time there are very few jobs open.

MEAGHER: Soil moisture in the valleys very spotted, averaging about normal. Snow moisture in the mountains 25% above 1937. No spring growth started. Fall grains wintered well. Lower ranges closely grazed. Grass has not yet started in any locality. Livestock wintering conditions very spotted. Normal number of stock moved out last fall for winter, now beginning to return. Feed supplies seem adequate barring bad spring storms. No uncommon death losses reported. Most sheep wintered both cheaply and well. 1200 calves sold in March, $27.00 to $31.00 per head. Many heifers going to Resettlement clients.

MISSOULA: Seasonal weather. Some snow during week. Soil moisture best for several years. All crops dormant. Spring work starting in some localities. Other localities delayed by snow or too wet soil. No damage to winter wheat reported although it is too early to tell definitely. Prospects for irrigation water are good. No grass. Livestock still on feed. Condition fair to good. Farmers beginning to hire men for spring work. Local supply of labor adequate. Gopher control campaign starting.

PARK: Snow depth in mountains normal or slightly above. Crop prospects as a result of recent snows very good. Very little winter wheat killing detected. Some spring seeding in Yellowstone valley done before snows came. Considerable planting of legumes and grasses contemplated as a result of improved soil moisture conditions. As a result of mild winter and plenty of feed, livestock in very good condition. Calving and farm flock lambing in full swing. More laborers than available work at present. A few calls for lambers. Spring work should soon take up slack. Plans made for extensive grasshopper and cricket programs. Heavy infestation expected.

PHILLIPS: Spring opens up with best ground moisture conditions since 1928. Depth of moisture varies from 2 to 4 feet on crop land. Winter precipitation about 1.5 inches but heavy runoff due to frozen ground. Storm of last two days added about .5 inch moisture but uneven due to high winds. No soil blowing so far. Temperature generally lower than normal. Some preparation for spring work, but no seeding to date. Rather mild and open winter brought all livestock through in good condition and on comparatively little feed. This week's storm caused losses of sheep but damage not yet fully determined. Cattle came through all right. Grasshoppers were hatching on range and cropland before storm. Crickets also hatching in Little Rocky area.

PONDERA: The two snows in February laid on the land very nicely and all the moisture from them went into the soil thereby making soil moisture considerably above that of a year ago. High winds, accompanied by snow the past week, piled snow in low spots and coulees which may help some to fill reservoirs, but very little moisture was held on open fields. There is very little crops seeded to date; however, some farmers have begun operations. The small acreage of winter wheat seems to be coming through in good condition. The decrease of livestock

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completed for them. Seeding by many individuals will be increased over last year, and the county as a whole will doubtless somewhat more than hold its own, considering control programs. The depleted numbers of livestock which went into the fall have generally come through the winter in average condition, but scattered reports of losses as a result of the recent storms have been received. Feed supplies are low, although grass was showing prior to the storm. Insect conditions, according to surveys, are not encouraging.

FERGUS: Total precipitation to March 30th, 1.81 inches. This surpasses the 40 year normal of 1.08 by .78 inch. March precipitation in 1937 was only .53. The total precipitation for 1938 to date now totals 2.74 inches as compared with 2.65 inches for the 40-year normal. The condition of the winter wheat in Fergus County is better than any year since 1928. There probably is a larger acreage seeded to winter wheat than has been seeded at any time except in the fall of 1935. Moisture conditions are generally good over the entire area with summer fallow having from 18 to 30 inches of moisture previous to this storm which added about 1.25 inches moisture. Range conditions seem to be very promising with plenty of moisture to get the grass well started. Livestock came through in very good shape with some feed left in practically all parts of the county. Sheep generally are in good condition. Lambing not expected until the 15th of April with the bulk starting about May 1st. Some hoppers have already hatched out because of the warm weather in March; crickets have not started hatching yet but preparations are being made to take early measures, of control.

FLATHEAD: The spring has been earlier than normal; fields are beginning to dry. Precipitation for March was slightly below normal. Soil moisture conditions are generally good throughout the county. The condition of winter wheat is above average, with the percentage of abandonment considerably below the past few years. Some farmers have started to work their alfalfa fields, but general farm work will not start before another 10 days. The acreage planted to spring wheat apparently will be increased. This is due to a large carryover of hay and farmers turning to wheat in place of hay. All land that has been lying idle the past few years, or other land that can be put into cultivation, has been leased up by people moving into the county, and will be planted to a crop this year. The condition of livestock has been very good throughout the winter, with very light losses. Lambing is nearly completed, with the lamb crop reported to be somewhat lighter than last year.

GALLATIN: Winter has been characterized by average higher temperatures than for the past four or five winters. Also there was a decreased amount of snow in the valley proper. This had the result of giving an open winter which greatly reduced the amount of winter feeding necessary for livestock, In contrast to this, the snowfall in the mountains and in the drainage areas for Gallatin Valley water courses increased and probably an increased amount of irrigation water for the coming season will result. Mild weather during the middle of March caused the frost to come out, and this followed by about an inch and a half of precipitation in the form of snow may have the effect of providing a greater amount of sub-soil moisture than has been had for four or five years. Livestock in general is in excellent condition, due to the open winter. Lambing in farm flocks practically completed.

HILL: 1.02 inches precipitation in the past week. Sub-soil moisture in summer fallow to the depth of approximately three feet and in stubble land from 18 to 24 inches. Last snow storm of greatest value to stubble land and weedy prairies. Excess of moisture since January 1st is plus .66 inches. Winter wheat and winter rye to date in excellent condition. Weed growth on prairies had tendency to hold greater amount of snow than normal which should react to more favorable grass conditions early in the spring. Livestock in normal condition. A surplus of labor available. Farmers throughout the county report more sub-soil moisture than for several seasons and are optimistic about the outlook for the year.

JUDITH BASIN: Precipitation during the past month has been rather low. Fall precipitation was unusually good. At the present time the soil is below normal in moisture content. A snow, carrying a light amount of moisture, fell with an extremely high wind the first part of this week. The damage by the wind offset any benefits which may have resulted from the snow. In many places the frost is still in the ground. The winter was, in general, favorable to fall wheat. However, recent winds have appeared to do some damage. The majority of the fall wheat seems to have stood the winter in good shape. Very little soil blowing has occurred prior to March, but recent winds have moved a considerable amount of dirt in certain localities. Spring planting and field work is not expected to start much before the 15th of April. The early winter storms were rather hard on livestock, but there was sufficient feed at that time to carry most of the herds. Some calves and lambs were lost in the storm the first of this week. Winter range is practically gone, but a few days of warm weather will start the grass in good shape.

LAKE: Snowfall during the winter was above normal in both the valley and the mountains. The snow went off slowly in the spring and as a result there was a

(Continued on Page 3.)

The following county summaries of crop conditions for the week ending April 2, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Wet snow general over county during past week; minimum temperature has been below freezing. The winter has been very mild and open with considerable grass last fall. There has been more snow in the higher elevations than the past couple of years. From the reports of the Forest Service it shows that above 7500 feet elevation snow is in excess of last year. There is a considerable carryover of hay, except in the areas with a very short hay crop last year, such as Horse Prairie and Medicine Lodge. Livestock wintered good, with a shorter feeding period than last year. Approximately 8000 head of cattle were on feed in the Big Hole and Grasshopper area this year. Some steers moved the other day at 7¢. Calving under way, with weather not too good the past ten days. All of last year's wool has been shipped from the wool house, with the last 200,000 pounds selling since the first of the year at 19¢ to 21¢. No 1938 wool contracted as far as is known.

BIG HORN: Precipitation during the winter months and up to the present time has been above normal. A general snow storm covered the entire county during the past week with a high moisture content. Crop conditions at the present time are the best that they have been for a couple of years. Especially is winter wheat in a healthy condition. Before the recent storm some field work and a small percentage of spring wheat seeded. Livestock came through the winter in splendid shape. With warmer weather grass should be coming along nicely providing an early pasture and a good growth for the ensuing year.

CASCADE: Precipitation during the months of February and March has been above average, and except for a few days of high wind, conditions have been very good, and crop conditions appear better at this time of year than at any time since 1934. The survival of winter wheat is comparatively high and it appears now that 90% of winter wheat seeded will survive. Moisture conditions in the mountains and range areas are practically normal and farmers are optimistic about crop prospects for 1938. Livestock are in good condition. Lambing is under way on many ranches and the spring crop of calves on cattle ranches appears to be normal. Altogether, the outlook for 1938 for both crops and livestock in this county are the best since 1934.

CHOUTEAU: Above normal moisture in Highwood, Geraldine, Square Butte and south region. Northwest and west areas have not had sufficient moisture to carry over winter wheat very well, although most stands are still alive. Soil blowing has been bad in the Carter and Genou areas with fields blowing in other areas as well. High winds prevailed on several occasions causing damage to some winter wheat. Moisture in fallow varies from 18 inches to 4 feet; with average rains, yeilds should run from 15 to 35 bushels per acre in the winter wheat areas. The recent snow has added to the moisture but drifted considerably. Most livestock have wintered well and are going into the spring almost as good as last winter. Feed supplies are ample as the open winter has reduced feed needs. Crickets have hatched in small numbers. Plans under way for control.

CUSTER - POWDER RIVER: Week featured by a two-day snow storm preceded by rain Monday night. Moisture conditions much improved, although snow drifted considerably. Another supply of flood water is assured. Temperatures mostly below freezing. Some spring plowing before the storm but generally no farm work started. Soil moisture supply in dry land sufficient for spring work but not enough to guarantee a crop. Flood projects well soaked in first runoff. Recent storm caused some drifting of stock on the range, but no losses reported. Previously green grass was appearing in good volume. Spring grass now assured as soon as weather warms up. All stock wintered well with little or no hay except on Powder River in eastern Custer County. Generally a good supply of hay is held over. Lambing and calving to start soon with prospects for good crops of both.

DANIELS: Nearly all of the winter's snow disappeared during the first part of March indicating a possible early spring. Slow thawing caused a considerable amount of the moisture to soak into the ground. Cold and stormy weather during the past week has changed the hopes of farmers as to getting into the fields early. Approximately one inch of moisture in the form of rains and wet snows have fell over most parts of the county during the past week. Sub-soil moisture varies from two to four and a half feet in depth, depending on the type of soil and tillage methods carried on last season. Nearly all of this moisture is a result of rains that fell during late summer and early fall of 1937. Crop conditions are more favorable than has been the case at this time of year for several years. Livestock in general is in better shape and it was expected that they would be. This is due to the open and mild winter, enabling stock to rustle in thistle fields.

DAWSON: The mild weather of most of March gave way to a rather severe snow, rain and wind storm at the close of the month with conditions quite unfavorable to livestock. Moisture conditions as spring opens are encouraging and where snow was held on fields, quite favorable. Seed supplies on farms are relatively large, and where additional supplies are necessary, arrangements have been generally

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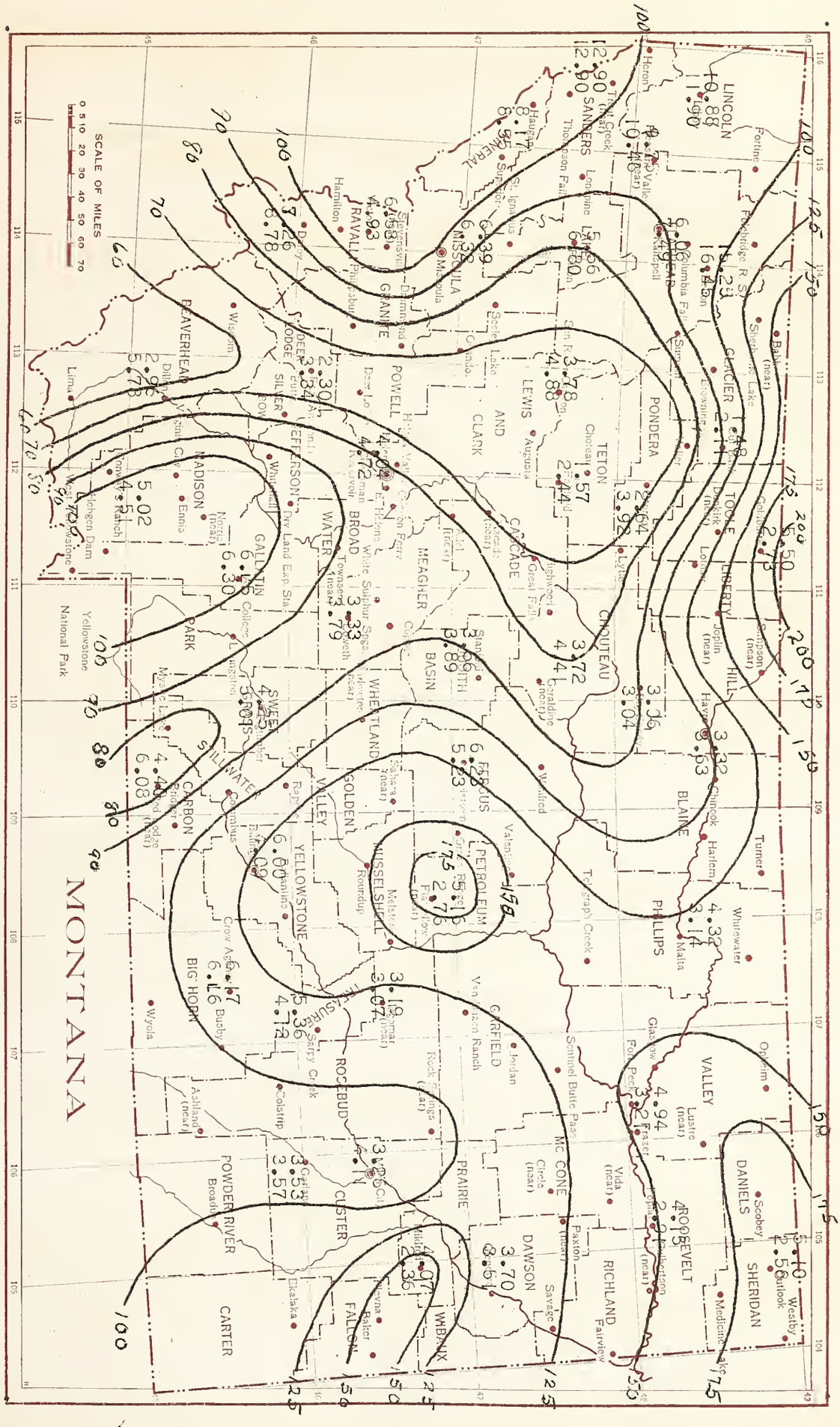

This map shows the percentage of normal precipitation that occurred in Montana during the 6-month period, October, 1937 to March, 1938, inclusive.

The upper of each typed pair of figures indicates the actual amount of precipitation that occurred in that respective area during the 6-month period; the lower figure of each pair indicates the normal amount for the same period.

Up to 100%, percentage lines are drawn for each 10% difference; over 100%, lines are drawn for each additional 25%.

U.S. Weather Bureau,
Helena, Montana

UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau --- Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 5, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.
Offices: Federal Office Building, Helena, Montana.

The six-month period from October, 1937 to March, 1938, inclusive, was mild with severe cold weather of any length occurring only during the last few days of January and the first three weeks of February. Only shallow freezing of the ground was reported west of the Divide, where the depth of frost for many of the lower districts generally did not exceed 6 inches. East of the Divide, frost penetrated to less than the normal depth, and left the ground rapidly during the middle of March. Fall rains and winter's melting snows were well absorbed. The accumulation of moisture in soils at the start of spring was regarded the best for the last several years. In many of the eastern and central districts soils appeared moist to depths varying from 2 to 4 or more feet. This was true particularly in the northeast where last year's drought conditions were most severe.

A chart of Montana's six-month fall and winter precipitation shows more than 80 per cent of the State's total area with 100 to 200 per cent of the normal seasonal amount of moisture. Areas of greatest excess of precipitation included Daniels, Sheridan, Roosevelt, and Valley Counties in the extreme northeast; Fallon and Prairie Counties in the extreme east; Petroleum southward to Yellowstone County in the south-central; and parts of Glacier, Toole, and Liberty Counties in the extreme north-central part of the State. The deficiency area embraced Pondera, Teton, Chouteau, Cascade, and Lewis and Clark Counties, and also extended southward from this group to Beaverhead County and southeastward to Carbon County. In Beaverhead County the deficiency amounted to 50 per cent, and in the more central group of counties ranged from 25 to 40 per cent. The outlook for irrigation water from snowfall stored in the mountains is much improved over last season. Although snow storage is below normal on many watersheds, the cover is heavier and has a greater content than last year.

Fall weather and soil moisture conditions were mostly favorable for germination and a good stand of winter grains before the beginning of the dormant period. The snow cover was generally adequate for their protection during the comparatively short periods of extremely low temperatures, and as a result nearly all winter grain reached the growing season in a vigorous condition and with a high percentage of survival. A little soil-blowing occurred at times but caused no great amount of damage to winter grains or pastures nor loss of soil from fields. Temperatures during late March and April to date have been too low to stimulate rapid growth.

Weather conditions were favorable for carrying on farm work late in the fall, and for most outside operations during the winter. March conditions, however, permitted only a little plowing, levelling, and spring seeding in a few south-central and extreme eastern districts. A heavy snowfall near the close of March was expected to delay farm work east of the Divide well into April.

Pastures and ranges for the most part have plenty of moisture to get grass well started. Sunshine and warmth, however, are needed for accelerating growth. Alfalfa, crested wheat, and other grasses that were planted last season are reported in a healthy condition. Improved moisture conditions are expected to induce increased plantings of legumes and grasses this season. Northeastern ranges are only lightly stocked this spring because of drastic reduction of livestock during last year's severe drought.

All classes of livestock wintered well. Consumption of feed was lighter than usual, because of the mild weather and open range. A surplus of feed remained at the end of March in all sections except the northeast, where almost the entire winter's feed supply was shipped in. Livestock losses were negligible until the late March storm. In connection with the late March storm, however, most losses have been intimated up to the time of this report rather than actually reported. Cold wet snows during late March and April caused some calf and lamb losses.

Crickets and grasshoppers started hatching during brief warm periods in March. While serious infestations are expected in some eastern and southern localities, steps have been taken for getting control work underway at an early stage.

Series - 1938 - No. 1.
Helena, Montana.
April 6, 1938.

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Bureau Agri. Econ.

UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau — Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 26, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.
Offices: Federal Office Building, Helena, Montana.

Moisture conditions continued mostly satisfactory during the week ending Tuesday, April 26th, but growth of crops and ranges was retarded somewhat by cloudy weather and cool temperatures. No harm resulted from several nights of hard frosts and freezing temperatures as susceptible vegetation had not advanced sufficiently to be damaged. High winds at the close of the preceding week did no great amount of damage to seeded fields except in a few northcentral districts. Most of the soil-blowing in the northeast occurred on uncultivated fields. Precipitation was either too light or spotted to be of much benefit to the State as a whole until general rains occurred at the close of the week. Flooded mountain streams caused considerable property damage in the extreme western part of the State, but subsided early in the week when rains ceased over the high watersheds and cooler temperatures checked the rapid melting of the heavy snow-cover.

Good progress was made throughout the week with seeding of small grains and sugar beets. Rains interrupted seeding operations in some northeastern and southwestern districts at the close of the week. Seeding is generally in full swing, and varies from 25 to 75 per cent completed. It is least advanced in the northeast. Plowing conditions continued favorable.

The condition of winter grains continued good, although progress during the week was slowed up because of cooler temperatures. Early sown spring wheat has started to come up. Additional rains would be of benefit to both fall and spring sown crops east of the Divide. Generally ample moisture for the present is reported west of the Divide.

Livestock were reported gaining on new grass in southern sections, and maintaining a satisfactory condition generally. Cold rains at the close of the week were unfavorable for the start of range lambing. Conditions have continued favorable for calving and lambing with generally good percentages reported both in case of calves and early lambs. Grass has started in all sections of the State, but growth during the past week was retarded by the cold nights and cloudy weather. Stands of range grass are reported somewhat thicker this spring in many of the southeastern districts, but are still thin in the eastcentral, northeastern, and some northcentral districts. Fall planted crested wheat-grass is reported doing well in the southwest, but has been killed to some extent in the northcentral districts by freezing and soil erosion.

Grasshoppers have made little or no appearance to date, but Mormon crickets have appeared in several areas, and dusting crews have started control operations in Big Horn, Cascade, Chouteau, Lake, and Yellowstone Counties.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING APRIL 26, 1938

	Temperature		Sunshine	Total Precipitation		
	Highest	Lowest	% of Possible	This Week	From April 1st to Date	For Corresponding Period in 1937
Billings	67	28	*	0.22	0.45	0.72
Bozeman	57	25	*	0.60	1.39	1.87
Conrad	*	*	*	0.24	0.67	0.72
Cut Bank	60	18	*	0.32	0.71	0.40
Fort Peck	67	28	*	0.29	0.30	0.34
Glendive	71	26	*	0.11	0.12	0.35
Great Falls	62	24	*	0.14	0.23	0.20
Havre	64	24	56	0.27	0.28	0.30
HELENA	59	25	56	0.18	0.61	0.29
Kalispell	58	28	54	0.15	0.42	0.92
Lewistown	64	20	*	0.12	0.56	0.56
Malta	67	24	*	0.13	0.21	0.73
Miles City	70	26	74	0.29	0.44	0.58
Missoula	66	32	54	0.52	0.74	0.74
Poplar	68	21	*	0.51	0.51	0.38
Stanford	*	*	*	0.30	0.92	1.88

*No Data.

Series - 1938 - No. 4
Helena, Montana
April 27, 1938

W. E. Maughan, Weather Bureau.
Jay. G. Diamond, Bur. of Agri. Economics.

The following county summaries of crop conditions for the week ending April 23, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: No precipitation, drying winds, weather cooler. Snow going off higher valleys. Field work under way, grass getting good start. Livestock in good shape. Approximately 1000 head of fed steers shipped during the week. Preparations under way for lambing.

BIG HORN: General growing conditions very good throughout entire county. Winter wheat especially making good progress and spring wheat also making good growth. Beet land in splendid condition and seeding expected to start soon. Livestock in good condition, range generally green and grass reported thickening up in areas where it has been somewhat depleted during the past few years. Cattle and sheep generally on the range. Crickets reported threatening in some communities.

BLAINE: Growing conditions satisfactory. Frost three nights. Farm operations general. Planting sugar beets in Milk River Valley. Dry land plantings progressing with considerable wheat now sown. Summer fallow fields working up in excellent condition. No soil blowing reported. Good percentage of lambs reported. Dry bands moving to summer range in northern part of county. Cattle men report very satisfactory calf crop. Range grass showing some growth but needs more real warm weather. Labor normal.

CARBON: Good rain reported over entire county on 22nd. Weather cool most of week. Seeding well under way in Clarks Fork Valley. Seeding of sugar beets started. Little seeding done in western portion where the season is later. Wheat making good start. Good stands of winter wheat reported. Mormon crickets hatching in northwestern and eastern portions of county in numbers which promise heavy infestation in certain sections. Dust mixing and arrangements for dusting well under way. Livestock conditions good and range conditions good.

CASCADE: No precipitation. High winds and severe dust storms did considerable damage to winter wheat Monday and Tuesday. Exact amount of damage has not been determined. Principal losses occurred northwest of Fife and in Portage and Power districts. This wind also sapped considerable moisture. Planting of sugar beets well under way as is seeding of spring wheat. Livestock in good condition with prospects for ample grass. Surplus of labor. Mormon crickets reported hatching in large numbers in Highwood and Little Belt districts. Plans completed for poisoning operations starting the first of next week.

CHOUTEAU: Favorable growing conditions; severe blowing of soil in west and north areas for two days; no precipitation. Winter wheat growing rapidly where moisture reserve is ample. Spring wheat seeding well under way. Grass greening up in most sections where moisture is sufficient. Cattle continue in fair condition. Labor unchanged. Mormon crickets continue hatching and will continue for several weeks. Some dusting begun.

CUSTER - POWDER RIVER: Light showers fore part of week followed by two cold windy days with frost Wednesday night. No damage reported. Warmer latter part of week. Growing conditions more favorable. Seeding operations well under way. Condition of winter grains continues good. No sugar beets planted yet. Irrigation water supply looks ample for early season use. Alfalfa survived winter in good shape. Lambing started with good crop in sight. Calf crop prospects also look good but only a very small percentage of normal cow population on these ranges.

DANIELS: No precipitation. Growing conditions generally poor due to severe winds and generally cold weather. Winds are rapidly drying out surface soil Two very severe dust storms during week which caused considerable damage to cultivated fields. Planting of spring wheat in full swing. Range pastures beginning to show signs of growth. All surplus labor is either being employed on federal work projects or on individual farms, at present time. Some reports indicate that cutworms and wire worms are present in some areas.

DAWSON: Fore part of week cool and quite windy; altogether disagreeable. Seeding continues at a rapid pace throughout the entire county. Some soil blowing occurred as a result of heavy winds, although in quite scattered areas. No serious developments at this time. Earlier grass appearing in amounts to afford a little grazing.

FALLON - CARTER: Moisture conditions in Carter poor to fair. Southern portion in need of spring moisture. Fallon moisture conditions fair to good; spotted running out in the southeastern portion of county. Crop conditions fair to good on average. Farming in full swing. Livestock in good condition. Grass in Fallon good. Southern Carter county grass in need of spring rains.

FERGUS: Good growing conditions except high wind and considerable soil blowing first of week. Crops in area north and west part of county making good growth. East part needs moisture. All could use it. Soil tests show available

(Continued on Page 2.)

moisture down at least two feet in stubble and fallow in west part of county. Alfalfa making good start. Range beginning to produce some feed. Seeding of spring grain will soon be under way in all sections with many farmers thru seeding. Livestock making satisfactory gains. Lamb crop normal or above. Calf crop good. Crickets reported hatching. No definite information about numbers as hatching has apparently just started. Few hoppers reported.

FLATHEAD: Some precipitation first of week. Latter part cloudy and cold with frosts each night. Growing conditions fair. Reports from farmers indicate that surface soil is drying out much more rapidly than in past years due to ground cracking and high winds which have caused some soil blowing. Notmuch progress in seeding. Condition of livestock good. Some dry feeding is being continued but ranges are rapidly improving and dry feeding will probably be discontinued very soon. Labor adequate, but not many are going out on jobs at wages being offered by the farmers.

GALLATIN: Partly cloudy, very little frost, showers latter part of week. Practically no winter killing showing in any part of county. Soil moisture present to a depth of more than three feet in all areas except extreme north. Spring work under way in all areas. Range lambing continues.

GARFIELD - PETROLEUM: No precipitation. Growing conditions fair. Generally cool with some high wind. Fall seeded grains and grass continue in good condition. Spring seeding at its peak. Due to high winds at intervals scattered soil drifting mostly on fields not seeded has been observed. Damage is not great. Many operators are skeptical as to prospects for spring seeding of crops unless further moisture is available. Generally the cool temperatures of past week have been only moderately favorable to crop growth. In considerable area of the range the grass is thin and needs favorable moisture conditions. Condition of livestock satisfactory.

GLACIER: Cold weather all week. Freezing temperatures early part of week. Scattered snow and rain storms which did not amount to much. Grain growing well. Seeding of spring wheat going strong in southern part ofcounty. Some seeding beginning in Milk River territory. Seeding under Two Medicine Project generally completed. Lambing progressing satisfactorily. No severe losses reported. All livestock in general wintered in fine shape. New grass where tall enough to pasture not showing any adverse effects. Labor conditions normal.

HILL:: Trace of precipitation. Monday and Tuesday witnessed worst soil blowing so far this year. Seeding operations approximately 50% completed. Crickets starting to hatch. Grass making good start. Range conditions fair. Livestock in fair to good condition. Surplus of labor.

JUDITH BASIN: No precipitation, season backward, temperatures moderate. Growing conditions fair. High winds early part of week caused considerable drying and severe wind erosion, however, damage to winter wheat not excessive. Crickets have hatched in great numbers in some areas of county. Preparation for spring planting now in progress. Calving and lambing well under way. Livestock condition fair. Ranges not sufficiently advanced to carry stock as yet. Surplus of labor.

LAKE: Gentle rain over county first of week. Growing conditions good. Days warm and nights cool. Snow run-off slow. Approximately 75% of all small grains seeded. Much of early seeded small grains emerging. Seeding of sugar beets in Moiese district. Moisture conditions very good. All livestock in excellent condition. Calf crop normal or above. Feeding discontinued. Dusting crew to control mormon crickets has started to work. Grasshoppers hatching in some areas.

LEWIS & CLARK - BROADWATER: Very cool fore part of week with improved growing conditions latter part. Minor amount of precipitation, considerable wind in both counties which caused some soil to move. While growing conditions have been only fair, field work has been progressing satisfactorily. Crop prospects in general are promising. Grass growth fair. Winter feeding gradually tapering off. Practically no reports of crickets or grasshoppers hatching. New bait increasing activity in poisoning of ground squirrels.

MADISON - JEFFERSON: Growing conditions mostly favorable. Good shower fell Friday evening over southern Jefferson County and a large portion of Madison County. Preparation of ground for planting made rapid progress throughout week. Winter wheat and rye in excellent condition. Conditions favorable for calving and lambing. Excellent crops of both calves and lambs continue to be reported. Some stockmen have turned out on grass.

MEAGHER: No precipitation this week. Soil moisture better than in previous years, average depth on bench land 11 to 12 inches. Ground conditions and growing conditions good. Winter grain doing well, fields now solid green. Grass growing, almost enough to support livestock. Seeding operations well begun.

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Livestock in very good condition. Peak of calving passed. Several bands through lambing, balance will begin soon. Both calf and lamb crops reported good.

MISSOULA: Cool and cloudy most of week. Some wind and some light showers. No appreciable precipitation. Excellent growing conditions. Spring work in full swing. One-fourth to one-half of seeding completed. Alfalfa and winter wheat starting good growth. No spring crops up yet. Soil moisture generally good. Top soil dry in some localities. Crop prospects excellent at this time. Grass good on lower pastures. Livestock in fair to good condition. Some feeding being done in some localities. Labor balanced.

MUSSELSHELL - GOLDEN VALLEY: Enough local showers to keep top soil moist enough to prevent blowing. Crop conditions generally very good with exception of a few local areas where high winds in March tended to slightly damage winter wheat. About 60% of spring seeding has been done. Livestock in good condition. Calf crop has been very good. Lambing just started.

PARK: Cold unsettled weather, with two rains supplementing moisture reserve but delaying farm operations. Crop and grass prospects excellent. Plenty of moisture but warm weather needed for rapid growth. Winter wheat looking fine. Farmers seeding spring crops where and when dry enough. Calving and lambing completed on most ranches. Above normal crops of both reported. No wool reported contracted. Local wool is reorganized. More than usual loss of baby chickens occurring this spring. Still shortage of labor for local laborers. Few crickets have hatched. County prepared to combat both grasshoppers and crickets as soon as infestations develop.

PHILLIPS: Cool fore part of week but gradual rise in temperature last two days. No precipitation. Some soil blowing in north part of county but not serious. Preparation for spring planting under way in all parts of county. About 10 to 15% of grain planted. Sugar beet planting started in valley. Moisture conditions generally favorable, but few more windy days will remove surface moisture from fields that are worked. Few hoppers hatching. Grass picking up and with warm weather the range will improve rapidly. Condition of livestock good. Crickets hatching in Little Rockies area. No demand for labor.

PONDERA: High winds fore part of week caused considerable blowing in some areas. However, weather was favorable for starting crops remainder of week. No precipitation. Field operations in full swing. Many have begun seeding and others are getting prepared to seed. Very little weed growth to date. Reports from lambing and calving are good. Labor supply plentiful. Some insects beginning to hatch, but no reports of grasshoppers or crickets to date.

PRAIRIE: Weather and soil moisture conditions favorable for growth of crops and progress of farm work. No precipitation and weather warming up. Early sown crops coming up in good shape with even stands. Some wind but no blowing as yet on plowed or sowed fields. Range grasses making good growth but lack of density is apparent. Livestock is looking fair to good. Lambing under way in farm flocks of sheep.

RICHLAND: No precipitation but severe winds occurred two days that caused some soil drifting in certain areas. Land now dried up so cultivation is possible on practically all fields. Farmers trying to get crops in as quickly as possible but many are delayed on account of lack of finances to put in crops this spring. A few growers have practically completed seeding of wheat and are now seeding barley and oats, but great bulk of growers are still planting wheat and will be for another week or so. No outbreak of grasshoppers has occurred yet. No particular change in livestock situation.

ROOSEVELT: Light showers and high wind fore part of week. Warm and clear last of week with good growing conditions. Considerable soil blowing first of week on land not cultivated. No damage to seeded grain reported. Farm work progressing rapidly with majority of fields working up in good shape. Indications that larger amount of wheat will be sown though many farmers handicapped by lack of finances. Pastures improving with most livestock turned out. Expected that ranges will be considerably understocked due to shortage of livestock.

ROSEBUD: Light rain first of week. Warmer weather last of week hastened new growth of grass and winter grain. Moisture conditions good. Winter wheat developing rapidly. Dry land grain about 75% seeded. Seeding of beets started in one district during week. Large percentage of growers still awaiting contracts. New grass furnishing fairly good grazing. Reports indicate good calf crop with calving generally in full swing.

SANDERS: Precipitation .95 inch. General rains over entire county first of week. Heavy floods in tributary streams caused heavy damage to roads, bridges and farm improvements. Growing conditions backward account of cool weather with some frosty nights. Winter wheat making good growth with evidence of good stand and little winter damage. Meadows making slow growth account cool weather. Spring

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seeding well advanced with soil in fine condition. Livestock in good condition. Range making fair growth with good moisture supply. Crickets hatching in large numbers mostly in wide areas of range lands.

SHERIDAN: No precipitation. High winds during first part of week started much soil blowing on crop land not yet cultivated during 1938. Moisture conditions of soil excellent throughout county. Seeding progressing rapidly. Most of wheat will be seeded during April if present weather conditions continue. Grass beginning to appear on ranges. Present conditions indicate future pasture and hay supply to be more than sufficient for stock on farms in county. No change in labor situation.

SUN RIVER PROJECT: Weather has continued cold during the past week with only a trace of moisture on Wednesday. High winds on Monday and Tuesday moved some soil on irrigated farms. Few sugar beets are being seeded this week and a few early fields of grain. For most part, farmers are waiting to irrigate before seeding.

SWEETGRASS: Weather past week cool and cloudy and frosty at night. Trace of precipitation. General growing conditions slow. Winter wheat growing slowly, also grass only in protected spots. Early seedings of spring grain and grass seeds showing on protected slopes. Livestock doing well. Plenty of feed but very little old grass. Lambing about complete in all farm flocks with a very successful lambing. Lambs growing nicely. All labor busy with farming operations and WPA projects. Crickets slowly but constantly hatching. Control work will start next week in a limited way.

TETON: Light snow last of week, not enough to do much good. Temperature as low as 20°. Extremely bad wind first week, worst in years, doing considerable damage to winter wheat. Some of early spring seeded wheat, especially in large fields, was blown out. It has been reported that the foot-hills country received a nice rain the middle of the week. Seeding of small grains now started in most communities. For the county as a whole about 30% of seeding done, including over 50% for eastern part of county. Grass very slow in starting. Lambing in full swing. Good weather for lambing so far.

TOOLE: High winds two days, temperatures down to freezing three times. Seeding operations in full swing. Some soil moved during extremely high winds, but up to present time it has not been as severe as other years, and only small areas have been affected. Lambing operations in full swing. Grass greening up in nice shape throughout entire county.

VALLEY: Three days of high winds. Two days of moderate winds which were drying and extended from the boundary lines of the county eastward. Soil drifted badly. Trace of precipitation throughout county Monday, nights very cool. Ground works pretty well and many farmers state that plowing is best since 1928. Seeding well under way. Some grains beginning to sprout. Practically no stand of winter wheat seedings. Winter rye coming through in good shape. Crested wheatgrass coming through in good shape, however, some was killed off by the storm the fore part of month. Livestock being turned out on ranges. Grass beginning to green up in good shape.

WHEATLAND: Generally cloudy, temperatures moderate, drying winds latter part of week. More field work started this past week. A few operators will start seeding this coming week. Lambing in full swing, good percentages reported.

WIBAUX: Precipitation on April 18, .25 inch. This benefited crops that were seeded and grass to some extent. Seeding operations in full swing. About 60% or more of the wheat has been planted. Indications are for a maximum grain crop being planted. Also a maximum feed crop. Cutworms reported in large numbers in one part of county, and very general in extremely large numbers from the Montana-Dakota line East to the Little Missouri River. The species is not the pale western. Grass beginning to show up and should make good spring growth with present moisture conditions.

YELLOWSTONE: Precipitation .04 inch. Weather fairly warm. Growing conditions good. A few light rains with warmer temperature has improved growing conditions considerably since last week. Beet seeding in full swing with large acreage expected. Most spring wheat seeded and most all other small grain seeding under way. Summer fallow operations starting on dry land. Conditions of winter wheat excellent in practically all areas. Livestock in good condtion, grass growing rapidly and sufficient water and moisture for all stock areas. Surplus of labor. Mormon cricket control work under way, with a few communities starting to dust. Cool nights and rainy weather has held back cricket growth in some areas.

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Helena, Montana
April 26, 1938

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, May 3, 1938.

Issued jointly by the Bureau of Agricultural Economics and the Weather Bureau.
Offices: Federal Office Building, Helena, Montana.

A few days of summer-like temperatures and bright sunshine followed by warm general rains Sunday furnished crops and ranges with the most favorable growing weather of the present season to-date. The rains averaged between 1/4 and 3/4 of an inch over most of the State, being heaviest in the southwestern and northeastern parts, and least and mostly less than 1/4 of an inch in the south-central, east-central, and north-western parts. The rains replenished topsoil moisture, assured germination of spring-sown grains, beets, and grass seedings, and temporarily ended the menace of severe soil-blowing.

Intensive field operations were halted by Sunday's rains, but strong drying winds on Monday and Tuesday assured early and favorable resumption. Seeding of early grains was reported half done to completed except in some normally very late starting areas. Summer-fallowing got underway in western counties. Planting of sugar beets was reported well along with conditions now generally favorable for germination. Some early seedings have already emerged. Preparation of gardens continued generally with early stuff beginning to come up. Early potatoes were planted, and also some canning corn, and seed peas. Trees and shrubs were reported leafing out, and early plums and cherries beginning to bloom west of the Divide.

Winter wheat and rye have developed good root systems and generally are in excellent condition. Spring grains are germinating satisfactorily, and emerging with good stands.

Good rains and more favorable temperatures advanced ranges and pastures rapidly during the week. Green feed is now everywhere available in sufficient quantities for livestock except on the highest ranges and in a few of the most northern districts. Grass is reported best in several years for so early in the season in Carbon County, and much optimism prevails in other sections relative to prospects for a good range year. Alfalfa in some areas was set back some by mid-April frosts, but has made good recovery since, and now is mostly from 3 to 5 inches high. Some fall-sown alfalfa failed to grow in the southeast. Other hay crops are reported doing well.

Livestock are in good condition, and nearly all are on new grass and maintaining or gaining weight. Range lambing increased with weather and feed conditions generally satisfactory until Sunday when rains followed by chilling temperatures caused a little loss among new-born stuff. The lamb crop continues above normal.

Mormon cricket activity increased somewhat during the warmer weather, and migrations were reported underway in scattered areas. Dusting and tin fences were employed as control measures against the pests in the areas of most severe infestations. Many hatchings have appeared on open range country. There has been no appreciable showing to date of other insect pests.

TEMPERATURE AND PRECIPITATION DATA, WEEK ENDING MAY 3, 1938

Station	Temperature Highest	Temperature Lowest	Sunshine % of Possible	Total Precipitation This Week	Total Precipitation From April 1st to Date	Total Precipitation For Corresponding Period in 1937
Billings	82	33	*	0.26	0.71	0.74
Bozeman	72	35	*	0.60	1.99	2.42
Conrad	*	*	*	0.44	1.11	0.72
Cut Bank	70	25	*	0.70	1.41	0.42
Fort Peck	80	33	*	0.67	0.97	0.35
Glendive	86	25	*	0.21	0.33	0.42
Great Falls	76	37	*	0.47	0.70	0.22
Havre	78	34	52	0.45	0.73	0.31
HELENA	75	36	64	0.62	1.23	0.57
Kalispell	76	34	60	0.23	0.65	1.22
Lewistown	77	32	*	0.10	0.66	0.56
Malta	80	32	*	0.70	0.91	0.76
Miles City	84	30	62	0.52	0.96	0.81
Missoula	80	36	60	0.67	1.41	0.93
Poplar	83	28	*	0.23	0.74	0.48
Stanford	*	*	*	0.20	1.12	2.14

*No Data.

Series - 1938 - No. 5
Helena, Montana
May 4, 1938

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Bur. of Agri. Economics.

The following county summaries of crop conditions for the week ending April 30, 1938 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

NOTE: Since the week covered by the following reports ended Saturday, April 30, the rainfall figures quoted in practically all cases do not include the rainfall that occurred on the night of April 30 and on May 1, (Sunday).

BEAVERHEAD: Rain first part of week. Total moisture for month 1.59 inches. Seeding under way with moisture conditions good for germination. Good grass. Reports of good calf crop to date. Few operators starting lambing.

BIG HORN: Scattered showers in southern part early in week. South half has had plenty of moisture, but the rest of the county needs more rain. Growing conditions from good to fair with warmer weather. Crops in good condition. Winter wheat making good progress. Spring wheat nearly all seeded. Beets being planted generally over county with soil conditions fair. Range improving. Livestock in good condition. Crickets menacing, with dusting being used for their control.

BLAINE: Light precipitation. Growing conditions fore part of week poor; latter part excellent. About 75% of wheat is now in ground. Crops being planted under very favorable conditions. About 70% of sugar beet acreage now planted. Considerable wind fore part of week but no soil blowing took place. Livestock shows no change. Reports of very favorable lamb and calf crop come from all sections. Range conditions only fair. Good warm rain is needed to stimulate grass growth.

CARBON: Good rain reported over entire county Saturday night and Sunday. Winter wheat very good, crops making remarkable growth. Very little winter killing reported. Spring grains making very good start. Most all seeding of grains done in eastern and northern portions and seeding well under way in west portion. Sugar beet seeding in progress, prospects for bringing up crops without irrigation very good. Grass conditions best in years in hills, as reported by stockmen. Livestock in good condition. Labor plentiful.

CASCADE: Light showers improved growing and seeding conditions materially. Winter wheat has made rapid recovery from severe winds of last week and is in excellent condition at present time. Seeding of spring crops is about 40% completed, with seeding of sugar beets well under way; seed peas and small grains being planted as fast as ground can be prepared. There is ample moisture in the mountains to supply irrigation water for Government projects and subsoil moisture is good, having been supplemented with light showers this last week. Livestock in good condition with ample feed supply. Surplus of labor. Slight damage from crickets reported in Highwood area and plans are under way to commence poisoning operations at first of next week. No grasshoppers reported as having hatched and no cutworm damage apparent.

CHOUTEAU: Excellent growing conditions, no precipitation, rain needed in some sections for winter wheat. Winter wheat excellent in most sections, spring wheat seeding in general will be completed next week. Warm weather of past few days bringing grass up rapidly. Calving began over past two weeks. Livestock in excellent condition. No change in labor situation. Crickets appearing rapidly. Control program will be in full operation within the next week.

CUSTER - POWDER RIVER: Cool weather and scattered local showers first half of week followed by warmer weather last half. Growing conditions favorable. Winter wheat and rye continue to show good growth. Spring grains bebinning to show up. Seeding practically completed. Sugar beet seeding well along. Alfalfa making good growth after slight setback from frost the week of April 19. Irrigation water to be turned in Tongue River and Yellowstone ditch next week. Condition of cattle and sheep remains good. Lamb crop looks better than average with conditions and feed excellent. Range grasses making good growth after showers.

DANIELS: Precipitation averaged approximately one-fifth f an inch during fore part of week. Cold and windy during fore part, but turning warmer Thursday and Friday. Growing conditions generally poor. Seeding of wheat about two-thirds completed with earlier planted wheat up. Livestock picking up due to greening up of pastures. Range pastures showing up green in spots. No change in labor situation.

DAWSON: Week opened with considerable precipitation over major part of county f llowed by clear favorable growing conditions. Seeding continues at top pace, with many places completed. Wheat generally up to maximum of government program; other small grain seeding just starting. Grass in low spots providing feed, as is the early types of forage on benches.

FALLON - CARTER: Showers of varying intensity throughout the counties. .29 inch precipitation at Baker. Crop conditions good. Peak of spring seeding reached this past week. Many operators have completed their spring grain

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of grain crops and will be seeding corn in May. Crops in excellent shape. Lambing operations under way. High percentage of lamb crop. Grass fair for lambing. No shortage of labor reported.

FLATHEAD: Weather generally cool with some precipitation first of week. Growing conditions generally improved. Some early seeded spring crops coming up. Condition of winter wheat generally very good. Very little winter killing of hay crops reported. Farmers generally planting wheat in place of feed crops and peas. This is due to the fact that at present time there is a very large carryover of feed crops on farms in the county, and smooth peas are not being contracted for in the valley this year due to a large carryover by pea companies.

FERGUS: Growing conditions good. Showers first of week. Range lambing well under way. Few crickets hatching. No hoppers reported.

GALLATIN: Local showers fore part of week, considerable increase in temperatures and clear latter part. Stands of winter wheat now assure that practically no winter kill occurred. A few very small areas partially damaged by wind. Spring grain being rapidly seeded, and land preparation under way in practically all areas. Crickets hatching in north end of county in numbers which indicate a much heavier infestation than in 1937 in this same area. As yet no reports of grasshoppers hatching.

GARFIELD - PETROLEM: Showers of varying precipitation from .25 to .50 inch covered all of both counties except in Sand Springs and Mosby area early in the week. Temperatures rising latter part of week favored growing conditions following the moisture. In areas of precipitation during past week, early seeded fields are making favorable development. Further seeding of small grains continues. Livestock condition remains good for this season. All range livestock are on grass and generally maintaining or improving their condition. Lambing under way.

GLACIER: Freezing conditions first of week. Wet snow Sunday and Monday. Friday and Saturday warmer with Saturday being extremely good growing weather. Approximately 1/3 inch rainfall during early part of week. Cut Bank area practically all seeded, two north townships about 2/3 seeded and the Milk River area just getting started. Pastures excellent. Winter wheat showing up good. Some early seeding of spring wheat showing above the ground. Lamb crop looking good. Lambs still coming. Calf crop started. Some few reports of losses but majority of cattle calving in fine shape. Labor normal. No reports of insects developing.

HILL: .25 inch precipitation past week. Cool weather during fore part and ideal growing conditions latter part of week. Crops making fair growth. 50% of wheat is seeded, next week wheat seeding will be practically complete. Grass making good growth. Livestock in fair to good condition. Surplus of labor.

JUDITH BASIN: About .40 inch precipitation. Growing conditions excellent. Temperatures moderate. Winter wheat comingalong nicely. Spring wheat about 50% seeded. Soil moisture better than for past five years but not up to normal in most of county. Soil blowing in evidence in many fields. Crickets mostly hatched in some areas and starting to hatch elsewhere. Ranges improving. Most of livestock now on grass. Calving and lambing well along.

LAKE: General rains over entire county first of week. Warm and clear last part. Sugar beet seeding in full swing. Summer fallow operations starting on dry lands. Growing conditions excellent. Small grain seeding about completed. Labor situation normal. Few hoppers being reported. Crickets migrating in west end of county.

LEWIS & CLARK - BROADWATER: Very light precipitation, too cool for crop growth first half of week but excellent last part. Spring planting advancing rapidly. Sugar beets starting to be sown in Broadwater County. Some interest in mustard growing this year. Potato acreage will likely average slightly less than 1937. Grass conditions fair to good for this season of year. Lambing probably one-third to one-half completed. No report yet of mormon cricket or grasshopper hatchings except on Forest Reserve in Broadwater.

MADISON - JEFFERSON: Warm fore part of week followed by warm, quiet days and moderate nights. Winter wheat continues to look the best in several years, with early sown spring grains coming up. In vicinity of Harrison, Ennis and upper Madison, moisture has been so plentiful that spring work is being delayed. Several farmers irrigating alfalfa as rapidly as possible in some localities. There is need for more moisture in vicinity of Whitehall and some of the closely adjacent valleys. Livestock still doing very well with only a very few stockmen continuing to feed hay. Both lamb and calf crops very satisfactory.

MEAGHER: Two good rains past week. Warm, not freezing nights, Growing conditions excellent: Farming in full swing. Alfalfa three inches high. Many

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ranchers irrigating with run-off water from high drifts. Indications point to good grass year. Lambing begun. Very good crop percentage being reported so far. Both lambs and ewes in good flesh. Good wool clip indicated. No wool bids. Some calf crops reported short. Condition of cattle generally very good. Upper Musselshell dams beginning to take all surplus labor. Crickets beginning to hatch. Considerable increase in infested areas expected over 1937. Very few hoppers yet hatched although formerly unknown egg beds are frequently discovered.

MISSOULA: Cool, cloudy and rainy first of week, bright and warm latter part. Good showers restored soil surface moisture. Some spring grain coming up. Winter wheat and alfalfa growing well. About half of spring seeding completed. Farmers doing considerable leveling and ditching in preparation for irrigation. Winter wheat acreage low. Sugar beet acreage increased. Pastures and early ranges improving. Livestock improving. Still some feeding in some localities. Gopher control campaign starting.

PARK: Light rains during week. Much warmer weather latter part. Growing conditions excellent now. All winter wheat and winter rye in fine shape. Spring planting from 25% completed in Wilsall area to 75% completed in upper Yellowstone area. Grass still short but starting to grow the last few warm days. All creeks and rivers fairly high and expected flow for summer irrigation believed best in years. Some of livestock turned out on grass and most of it will be turned out next week. Labor about balanced. Few crickets reported hatching. Plenty of grasshopper eggs present. No poisoning operations necessary yet.

PHILLIPS: Cool early part of week. Light showers over most of county with .13 inch recorded at Malta. Not much wind. Growing conditions generally favorable. Temperature rising. Farming operations general with perhaps 50% of wheat seeded. Moisture in dryland areas still quite favorable. Sugar beet planting about 50% completed. No grasshopper outbreaks reported to date. Army cutworms infesting large area in southern part of county, doing damage mostly to range. Crickets hatching in large numbers. Livestock condition good. Range improving. Water plentiful. Calf crop normal. Some lambing reported with normal crop. Labor balanced.

PONDERA: Light showers Monday and Tuesday. Total precipitation .21 inch. Remainder of week good growing weather. Some early seeded crops are up. Others are well sprouted and will appear in few days with continuance of warm weather. Approximately one-third of crops are seeded. Grass growing well with warmer weather. No change in livestock situation. Over-supply of labor. Crickets appearing in small numbers in some areas toward north part of county. Army cutworms appearing in large numbers in east end of county.

PRAIRIE: Received scattered showers first part of week which were sufficient in Crow Rock area to start creeks running. Weather warmed up latter part of week and growing conditions are quite satisfactory. Early sown crops up and making satisfactory growth. Many farmers report that they are thru seeding wheat, and many report they are seeding a little more than last year. Grass continues to make good growth but it is noticeably thin on the ground. Livestock in fair to good condition. Sheepmen ready for lambing which is getting under way at present time.

ROOSEVELT: General precipitation first of week stopped all field work. Work resumed on most fields latter part of week. Temperatures cool with freezing at night middle of week. Growth not advanced enough for any damage. Early seeded wheat up in eastern section of county. About 50% of grain seeded. Livestock situation about the same. Very little feeding being done. Many farmers still employed on WPA. No surplus of labor.

ROSEBUD: No precipitation. Nights cold with some frost. No damage reported. Weather for week generally favorable for grass and grain. Seeding of spring grain practically completed. Beet seeding in full swing. A few early planted fields coming up. Rain needed to insure good germination of beets and grass seed. Calving well under way with good percentage reported. Lambing started in most bands during week. Feed conditions for lambing best in several years.

SANDERS: Precipitation .30 inch. Good rain over eastern part of county early part of week. Warmer temperatures latter part. Crop conditions very good with good moisture supply. All crops making rapid growth. Some spring seeding coming up. Seeding about 50% completed. Gardens being planted over most of county. Early fruit starting to blossom. Livestock doing well on range which has reached good carrying capacity. Crickets hatching in large numbers over wide areas of range land. Control measures starting against damage to crops.

SHERIDAN: Fair weather prevailed during past week. About one-fourth of inch precipitation fell during early part of week. Crop conditions excellent. Most of grain crops are seeded. Early seeded wheat is emerging nicely. Pastures getting green. Grass in low areas has developed sufficiently to be of value to

(Continued on Page 4.)

livestock. Labor situation unchanged. Federal projects continue to employ large number of men in the country,

STILLWATER: The .53 inch moisture received last week made ideal condition of grass and crop growth. Last part of this week characterized by warm days. With exception of some soil blowing last week, crops are in good condition. Winter wheat looks very good and early spring planted crops making rapid growth. Sugar beet seeding practically completed. Seeding of spring crop grains nearing completion. Livestock in good condition. Good calf and lamb crops reported. Surplus of labor.

SUN RIVER PROJECT: Total of .50 inch precipitation during week, weather warmed up latter part of week. Grass on range adjacent to project starting with the week's moisture. Tame pastures and alfalfa fields starting with warmer weather. Some seeding of grain going on. Sugar beet seeding well under way. Many farmers will have to irrigate before seeding.

SWEETGRASS: Precipitation .55 inch. General growing conditions ideal past three days. Fall grains growing rapidly. Good stands. Spring grains coming up in nice shape. Crop conditions excellent. Soils working up in fine shape. Moisture 16 to 24 inches deep with local showers. Both cattle and sheep in excellent condition. Lambing complete except in large flocks. Sheep turned out on grazing. Calving progressing satisfactorily. 50% of cattle out on grazing. Labor normal under ranching and WPA. Cricket control work well under way. Cricket infestation serious in crops, starting control campaign in full force. Grasshoppers still dormant.

TETON: Precipitation .18 inch first of week at Choteau with considerable more at Fairfield. Ideal growing conditions all week. No damage from wind. Seeding of spring wheat in full swing in dryland sections. Early seeded spring wheat coming up, showing good germination. Some winter wheat has not recovered as yet from damage done by the severe wind of April 18th. Grass over most of county is starting to come. Weather ideal for both lambing and calving.

TOOLE: Snow and rain fore part of week. .15 precipitation. Last several days splendid for germination of wheat. About 65% of wheat is seeded and it is expected that the bulk will be seeded in the next few days. Moisture tests in good summer fallow show from 2½ to about 4 feet throughout entire county. Practically all operators have started lambing and early reports show good lamb crop. Grass greening up in fine shape throughout entire area.

VALLEY: Past week cloudy and cool. General rain on 25th, approximately .25 moisture. Very little wind but soil continues to move in Avondale area. Spring work well under way. Good share of wheat seeding completed in southern part, 40% in northern part. Sugar beet seeding about half completed. Some fields which have been completely blown out in northern portion are being reseeded, for second time. Approximately 18 inches subsoil moisture throughout county. Nights too cool to bring grain through. Grass coming thru in good shape. Some areas where grass was thought to be dead, beginning to come back. Few straggler lambs being dropped. Practically all stock is turned out on summer range at this time.

WHEATLAND: Several showers during week, cool nights, days warmer, present conditions favorable for growth. Spring planting has started over county during past week. Lambing well under way.

YELLOWSTONE: Precipitation .23. Growing conditions excellent. Beet seeding approximately three-fourths completed. Spring grains up. Some early corn being planted and considerable garden truck in. Alfalfa and pastures growing nicely. Soil in excellent condition as far as moisture is concerned. Winter wheat making rapid growth and has excellent stand in practically every community. Summer fallow work in full swing on dryland farms. Cricket control work under way. Poison dusting starting in several communities. Five miles of tin barrier completed, from Carbon County line following reservation boundary to top of Yellowstone-Pryor Creek divide. Crickets starting to move in low communities. Oiling of Lockwood and possibly other irrigation ditches will start first of next week. Livestock in good condition. Water holes mostly full. Grass growing rapidly. Surplus of labor.

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Helena, Montana,
May 3, 1938